providing first and second electrodes opposed to each other in a reaction chamber, said first electrode having a plurality of gas inlets arranged in a first direction;

introducing a gas through said plurality of gas inlets into said reaction chamber;

generating a plasma of said gas by applying a voltage between said first and second electrodes wherein said plasma extends from the first electrode toward the second electrode and a cross section of the plasma along planes of the first and second electrodes has a length along the first direction and a width along a second direction perpendicular to the first direction where the cross section is elongated in the first direction and the length is longer than the width;

placing a substrate between said first and second electrodes; and

changing a relative location of the substrate with the plasma in the second direction.

23. (Twice Times Amended) A process for comprising the steps of:

providing first and second electrodes opposed to each other in a reaction chamber, said first electrode having a plurality of gas inlets arranged in a first direction;

introducing a gas through said plurality of gas inlets into said reaction chamber;

generating a plasma of said gas by applying a voltage between said first and second electrodes wherein said first electrode is grounded;

placing a substrate adjacent to said second electrode;

forming a diamond-like carbon film on the substrate by plasma chemical vapor deposition using the plasma; and

moving said substrate while forming the diamond-like carbon film on the substrate in a second direction perpendicular to said first direction,

wherein the plasma extends from the first electrode toward the second electrode, and a region of the plasma is elongated more in the first direction than in the second direction.

25. (Twice Amended) A process comprising the steps of:

providing first and second electrodes opposed to each other in a reaction chamber, said first electrode having a plurality of gas inlets arranged in a first direction;

introducing a gas through said plurality of gas inlets into said reaction chamber;

generating a plasma of said gas by applying a voltage between said first and second electrodes wherein said plasma has an elongated cross section along the first direction;

placing a substrate between said first and second electrodes; and

treating said substrate with said plasma while changing a relative location of the substrate with respect to the plasma in a second direction perpendicular to the first direction,

wherein a gap between said first and second electrodes is 30 mm or less, and the substrate is not in contact with the plasma during the treatment with the plasma.

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28. (Twice Amended) A process comprising the steps of:

providing first and second electrodes opposed to each other in a reaction chamber, said first electrode having at least one inlet having an opening elongated in a first direction;

introducing a gas through said at least one inlet into said reaction chamber;

generating a plasma of said gas by applying a voltage between said first and second electrodes wherein at each said at least one inlet said plasma extends from the first electrode toward the second electrode and at each said at least one inlet a cross section of the plasma has a length along the first direction and a width along a second direction perpendicular to the first direction and parallel to the electrodes where the length is longer than the width;

placing a substrate between said first and second electrodes;

treating said substrate with said plasma, and

changing a relative location of the substrate with respect to the plasma in the second direction during the treatment with the plasma,

wherein a gap between said first and second electrodes is 30 mm or less.

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31. (Amended) A process comprising the steps of:

providing first and second electrodes opposed to each other in a reaction chamber, said first electrode having at least one inlet having an opening elongated in a first direction;

introducing a gas through said at least one inlet into said reaction chamber;

generating a plasma of said gas by applying a voltage between said first and second electrodes wherein at each said at least one inlet said plasma extends from the first electrode toward the second electrode and at each said at least one inlet a cross section of the plasma has a length along the first direction and a width along a second direction perpendicular to the first direction and parallel to the electrodes where the length is longer than the width;

placing a substrate between said first and second electrodes;

forming a film on the substrate by plasma chemical vapor deposition by using the plasma, and

changing a relative location of the substrate with respect to the plasma in the second direction during the treatment with the plasma.

32. (Amended) The process according to claim 31 wherein a gap between said first and second electrodes is 10 mm or less.